IDEA - 0489 Copy 5 of 5

18 **September** 1961.

MEDIORANDUM FOR THE RECORD

SUBJECT : J-75 Alternator, Status of

- 1. This memorandum is intended to clarify the status of the AC alternator in J-75 equipped aircraft.
- 2. When the J-75 program was initiated an attempt was made to provide the alternator with a constant speed drive which would ensure an AC frequency of 400 cycles + 5%. However, such a drive could not be located and as a result the alternator was direct driven from the engine. This means that the AC frequency is directly proportional to the speed of the engine. Under conditions of long range cruise the AC frequency drops to as low as 320 cycles per second. All the electronic systems were designed to operate over the range of 400 cps ± 5% (380-420 cps), which was provided on J-57 aircraft. The lower limit of 320 cps would result in overheating and burning out components of these systems. Systems 3 and 6 have been modified to accommodate the 320 cps but Systems 4 and 7 have not been modified as yet. Before any operations are conducted in J-75 aircraft both Systems 4 and 7 must be modified.
- 3. Information received from Lockheed indicates that the J-75 alternator failure problem has been solved so the rash of such failures should be at an end.

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DEVOLOPMENT STANCE

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1-03/0P0 2-ACH/0P0 3-CH/0B/0P0 4-CH/4S/0P0 5-BI/0P0 0P0/0B/

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